AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently amended) A thermally conductive composite material for reducing electromagnetic emissions generated by an electronic device, said thermally conductive composite material comprising in combination:

a thermally conductive material in particulate form; and

an electromagnetic-energy-absorptive material in particulate form,

said thermally conductive material and said electromagnetic-energy-absorptive material being suspended within a polymeric base material, said polymeric base material being substantially transparent to electromagnetic energy,

wherein said thermally conductive material facilitates transfer of thermal energy from said electronic device and said electromagnetic-energy-absorptive material reduces electromagnetic emissions generated by the device,

wherein the electromagnetic-energy-absorptive material includes carbonyl iron.

2. (Currently amended) A thermally conductive composite material as claimed in claim 1 wherein at least one of said thermally conductive material and said electromagnetic-energy-absorptive material comprises particles in the form of granules having a **spheroid** shape ~~**selected from the group consisting of spheroids, ellipsoids and irregular spheroids.**~~

3. (Cancelled)

4. (Original) A thermally conductive composite material as claimed in claim 1 wherein said thermally conductive material is selected from the group consisting of aluminum nitride, boron nitride, iron, metallic oxides and combinations thereof.

5. (Original) A thermally conductive composite material as claimed in claim 1 wherein said thermally conductive material is a ceramic material.

6-8. (Canceled)

9. (Original) A thermally conducting composite material as claimed in claim 1 wherein said polymeric base material has a relative dielectric constant of less than approximately 4 and a loss tangent of less than approximately 0.1.

10. (Original) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material is selected from the group consisting of elastomers, natural rubbers, synthetic rubbers, PDP, EPDM rubber, and combinations thereof.

11. (Canceled)

12. (Original) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material is selected from the group consisting of silicone, fluorosilicone, isoprene, nitrile, chlorosulfonated polyethylene, neoprene, fluoroelastomer, urethane, thermoplastics, thermoplastic elastomer (TPE), polyamide TPE, thermoplastic polyurethane (TPU), and combinations thereof.

13. (Original) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material is a solid material selected from the group consisting of thermoplastic and thermosetting materials.

14. (Original) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material is a liquid.

15. (Original) A thermally conductive composite material as claimed in claim 14 wherein said liquid is selected from the group consisting of silicones, epoxies, polyester resins, and combinations thereof.

16. (Currently amended) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material comprises a phase-change material **configured to exist** ~~existing~~ in a solid phase at ambient room temperature and transition[[ing]] to a liquid phase at **a reflow** ~~equipment-operating~~ temperature[[s]].

17. (Original) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material comprises a mixture of a paraffin wax and an ethylene-vinyl acetate copolymer.

18. (Original) A thermally conductive composite material as claimed in claim 1 wherein said polymeric base material comprises a synthetic wax having a melting point of approximately 100℃ and a molecular weight of approximately 1000.

19. (Original) A thermally conductive composite material as claimed in claim 1 wherein said electromagnetic-energy-absorptive material has a relative magnetic permeability greater than about 3.0 at approximately 1.0 GHz and greater than about 1.5 at 10 GHz.

20. (Original) A thermally conductive composite material as claimed in claim 1 wherein said composite material is in the form of a sheet having a thickness greater than approximately 0.01 inches.

21. (Original) A thermally conductive composite material as claimed in claim 1 wherein said composite material is in the form of a sheet having a thickness less than approximately 0.18 inches.

22. (Original) A thermally conductive composite material as claimed in claim 1 wherein said composite material is in the form of a sheet, and further comprises an adhesive on at least one side of said sheet.

23. (Original) A thermally conductive composite material as claimed in claim 22 wherein said adhesive is a thermoconductive adhesive.

24. (Original) A thermally conductive composite material as claimed in claim 22 wherein said adhesive is a pressure-sensitive, thermally conductive adhesive.

25. (Original) A thermally conductive composite material as claimed in claim 22 wherein said adhesive is based on compounds selected from the group consisting of acrylics, silicones, rubbers and combinations thereof.

26. (Original) A thermally conductive composite material as claimed in claim 22 wherein said adhesive further comprises a ceramic powder.

27. (Currently amended) A method of reducing electromagnetic emissions produced by a device comprising ~~**the steps**~~:

~~**(a) providing a thermally conductive material in particulate form;**~~

~~**(b) providing an electromagnetic-energy-absorptive material in particulate form;**~~

~~(c)~~ combining **~~[[the]]~~** **a** thermally conductive material **in particulate form** with **~~[[the]]~~** **an** electromagnetic-energy-absorptive material **in particulate form, the electromagnetic-energy-absorptive material including carbonyl iron**;

~~(d)~~ suspending the combined thermally conductive material and electromagnetic-energy-absorptive material in a polymeric base material; and

~~(e)~~ placing the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in **the** **~~[[a]]~~** polymeric base material between said device and a proximate structure.

28-29. (Canceled)

30. (Original) The method of claim 27 wherein the proximate structure comprises a heat sink.

31. (Original) The method of claim 27 wherein said device comprises an integrated circuit.

32. (New) The method of claim 27 wherein:

the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base comprise a liquid solution; and

placing comprises applying the liquid solution onto a surface of at least one of the device and the proximate structure having one or more surface imperfections, and allowing the liquid solution to flow into the one or more surface imperfections.

33. (New) The method of claim 27 wherein:

the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base comprise a liquid solution; and

placing comprises spraying or painting the liquid solution onto a surface of at least one of the device and the proximate structure.

34. (New) A thermally conductive composite material as claimed in claim 1 wherein the electromagnetic-energy-absorptive material includes generally ellipsoidal carbonyl iron granules.

35. (New) A thermally conductive composite material as claimed in claim 1 wherein the electromagnetic-energy-absorptive material is entirely carbonyl iron.

36. (New) A thermally conductive composite material as claimed in claim 1 wherein:

the electromagnetic-energy-absorptive material exhibits better thermal conductivity than air; and

the thermally conductive material exhibits greater thermal conductivity than the electromagnetic-energy-absorptive material, the thermally conductive material having a thermal impedance value substantially less than that of air.

37. (New) A thermally conductive composite material as claimed in claim 1 wherein the composite material includes about 60 percent by volume of the thermally conductive material and the electromagnetic-energy-absorptive material.

38. (New) A thermally conductive composite material as claimed in claim 1 wherein:

the composite material is in the form of a sheet having a thickness of about 0.125 inch and exhibits an attenuation of at least about 5 dB in a frequency range from about 5 GHz up to at least about 18 GHz; or

the composite material is in the form of a sheet having a thickness of about 0.02 inch and exhibits an attenuation of at least about 3 dB for a frequency range extending upward from about 10 GHz; or

the composite material is in the form of a sheet having a thickness of about 0.04 inch and exhibits an attenuation of at least about 10 dB in a frequency range from about 9 GHz up to at least about 15 GHz and an attenuation of at least about 6 dB in a frequency range extending upward from about 15 GHz; or

the composite material is in the form of a sheet having a thickness of about 0.060 inch and exhibits an attenuation of at least about 5 dB in a frequency range extending upward from about 4 GHz, having a greater attenuation of at least about 10 dB in a frequency range from about 6 GHz up to at least about 10 GHz.

39. (New) A thermally conductive composite material as claimed in claim 1 wherein:

the thermally conductive material in particulate form comprises granules spaced-apart from each other;

the electromagnetic-energy-absorptive material in particulate form comprises granules spaced apart from each other and spaced-apart from the granules of the thermally conductive material; and

the composite material is electrically non-conductive.

40. (New) A thermally conductive composite material as claimed in claim 2 wherein the thermally conductive material comprises microspheres.

41. (New) A thermally conductive composite material for reducing electromagnetic emissions generated by an electronic device, the thermally conductive composite material comprising a thermally conductive material in particulate form, an electromagnetic-energy-absorptive material including iron silicide in particulate form, and a polymeric base material, the thermally conductive material and the electromagnetic-energy-absorptive material being suspended within the polymeric base material, the polymeric base material being substantially transparent to electromagnetic energy, wherein the thermally conductive material facilitates transfer of thermal energy from the electronic device, and wherein the electromagnetic-energy-absorptive material reduces electromagnetic emissions generated by the device.

42. (New) A thermally conductive composite material as claimed in claim 41 wherein the electromagnetic-energy-absorptive material comprises generally ellipsoidal iron silicide granules.

43. (New) A thermally conductive composite material as claimed in claim 41 wherein the thermally conductive material includes at least one of aluminum nitride, boron nitride, iron, metallic oxides and combinations thereof.

44. (New) A thermally conductive composite material as claimed in claim 41 wherein the composite material is in the form of a sheet, and further comprises a thermo-conductive adhesive on at least one side of said sheet.

45. (New) A thermally conductive composite material as claimed in claim 41 wherein said polymeric base material comprises a phase-change material configured to exist in a solid phase at ambient room temperature and transition to a liquid phase at a reflow temperature to conform to a surface of a device.

46. (New) A thermally conductive composite material as claimed in claim 41 wherein the electromagnetic-energy-absorptive material is entirely iron silicide.

47. (New) An electronic component comprising an integrated circuit, a heat sink, and the composite material of claim 41.

48. (New) A method of reducing electromagnetic emissions produced by a device comprising suspending a thermally conductive material in particulate form and an electromagnetic-energy-absorptive material including iron silicide in particulate form in a polymeric base material, and placing the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base material between the device and a proximate structure.

49. (New) The method of claim 48 wherein:

the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base comprise a liquid solution; and

placing comprises applying the liquid solution onto a surface of at least one of the device and the proximate structure having one or more surface imperfections, and allowing the liquid solution to flow into the one or more surface imperfections.

50. (New) The method of claim 48 wherein:

the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base comprise a liquid solution; and

placing comprises spraying or painting the liquid solution onto a surface of at least one of the device and the proximate structure.

REMARKS

Applicant thanks the Examiner for the thorough consideration given the application. Claims 3, 6, and 11 have been cancelled without prejudice hereby. Claims 32-50 have been added. Claims 7, 8, 28, and 29 were previously cancelled in Applicant's September 21, 2004 Response to the Written Opinion during the International Phase of PCT Application/US2003/33353 (from which the instant application is a national phase). Thus, claims 1, 2, 4, 5, 9, 10, 13-27, 30, and 31-50 are now pending in the application. Applicant respectfully requests the Examiner to reconsider and withdraw the rejections and issue a notice of allowance for the application.

In this response, Applicant has cancelled claims 3, 6, and 11 in an effort to expedite prosecution and to reduce excess claim fees and prosecution costs. All claim cancellations have been made without prejudice or disclaimer to the subject matter contained therein and without conceding or taking any position as to the merits of the rejections of claims. Applicant reserves the right to refile any and all cancelled claims and contest the rejections thereof in one or more subsequent applications. By making these claim amendments herein, however, Applicant does not necessarily agree or acquiesce with each statement in the Office action as to why any claims have been rejected.

CLAIM OBJECTION

Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 11 has been cancelled without prejudice. Therefore, the objection to claim 11 is moot.

REJECTION UNDER 35 U.S.C. § 112

Claims 11 and 16 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Claim 11 has been cancelled without prejudice. Therefore, the §112 rejection of claim 11 is moot.

As amended claim 16 recites, among other things, a thermally conductive material wherein said polymeric base material comprises a phase-change material configured to exist in a solid phase at ambient room temperature and transition to a liquid phase at a reflow temperature. Written description for reflow temperature is provided in the application as filed, see, for example, paragraph [0049] of the application as published under U.S. Patent Application Publication 2006/0099403. Accordingly, Applicant respectfully submits that amended claim 16 is sufficiently definite to enable one skilled in the art to apprehend the metes and bounds of what is claimed in claim 16.

For at least these reasons, the Examiner is respectfully requested to reconsider and withdraw the §112 rejection of claims 11 and 16.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-6, 9, 11-15, 19-21, 27, 30, and 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Maeda* et al (EP 0945916 B1). This rejection is respectfully traversed.

As amended, independent claim 1 recites a thermally conductive composite material including, among other things, an electromagnetic-energy-absorptive material in particulate form. The electromagnetic-energy-absorptive material includes carbonyl iron. Carbonyl iron is highly pure iron material. In contrast, *Maeda* discloses a silicone gel formed from at least one magnetic material selected from the group consisting of Mn-Zn ferrite and Ni-Zn ferrite, or a combination thereof. See, for example, *Maeda* paragraph [0019] (emphasis added): "In the sheet, the metal oxide magnetic particles are formed from at least one magnetic material selected from the group consisting of Mn-Zn ferrite and Ni-Zn ferrite. Mn-Zn ferrite is particularly preferred." Notably absent from the listing is any mention of carbonyl iron, which is not included in the group consisting of Mn-Zn ferrite and Ni-Zn ferrite. Further, carbonyl iron is *not* a ferrite. Therefore, *Maeda* fails to disclose, teach, or suggest the inclusion of carbonyl iron in a thermally conductive composite material as recited in claim 1. Accordingly, *Maeda* fails to anticipate claim 1 and claims 2, 4-5, 12-15, and 19-21 dependent therefrom.

Similarly, independent claim 27 has been amended to clarify that the method includes the use of an electromagnetic-energy-absorptive material in particulate form where the electromagnetic-energy-absorptive material includes *carbonyl iron*. As explained with respect to claim 1 above, *Maeda* fails to disclose an electromagnetic-energy-absorptive material being carbonyl iron. Thus, *Maeda* fails to anticipate the use of carbonyl iron in a method for reducing electromagnetic emissions. Accordingly, *Maeda* fails to anticipate claim 27 and claims 30-31 dependent therefrom.

For at least these reasons, the Examiner is respectfully requested to reconsider and withdraw the §102 rejections of claims 1 and 27, and claims 2, 4-5, 12-15, 19-21, and 30-31 dependent therefrom.

<u>REJECTION UNDER 35 U.S.C. § 103</u>

I. Claims 1-6, 9-14, 16-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kawaguchi* (U.S. Pat. No. 6,890,970). This rejection is respectfully traversed.

As amended, independent claim 1 recites a thermally conductive composite material including, among other things, an electromagnetic-energy-absorptive material in particulate form. The electromagnetic-energy-absorptive material includes carbonyl iron. Carbonyl iron is highly pure iron material. In contrast, *Kawaguchi* discloses phase transition thermally conductive material with filler. The filler is disclosed as being ceramic, soft ferrite including Ni-Zn ferrite or Mn-Zn ferrite, metallic powders including gold, silver, copper, and aluminum, metallic magnetic bodies, or carbon fiber. *Kawaguchi* fails to disclose the use of carbonyl iron as an electromagnetic-energy-absorptive material. Thus, *Kawaguchi* fails to disclose, suggest, or otherwise render obvious a thermally conductive composite material including carbonyl iron. Therefore, *Kawaguchi* fails to render obvious claim 1 and claims 2, 4-5, 9-10, 12-14, and 16-21 dependent therefrom.

II. Claims 10 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Maeda* et al (EP 0945916 B1) in view of *McCullough* et al (US Pat. No. 2002/0014748). This rejection is respectfully traversed.

The Patent Office relies on *McCullough* merely for disclosing an electromagnetic shielding material which comprises a polymer base, a conductive filler, and a metallic filler. *McCullough*, however, fails to remedy the shortcomings of *Maeda* discussed above relative to claim 1, from which claims 10 and 13 depend. Specifically, *McCullough* fails to disclose a thermally conductive composite material including an electromagnetic-energy-absorptive material, which includes carbonyl iron. Thus, even assuming, *arguendo*, that it would have been obvious to combine *Maeda* and *McCullough*, the suggested combination would still lack features recited by claims 10 and 13. Therefore, the combination of *Maeda* and *McCullough* fails to render obvious claims 10 and 13.

III. Claims 10, 12-15, 22, 23, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Maeda* et al (EP 0945916 B1) in view of *Nakuamura* et al (U.S. Pat. No. 4,555,422). This rejection is respectfully traversed.

The Patent Office relies on *Nakuamura* merely for disclosing a magnetic shielding article comprising a polymeric material with a ferrite powder, wherein the polymer base may be a polyester elastomer or a silicone rubber. *Nakuamura*, however, fails to remedy the shortcomings of *Maeda* discussed above relative to claim 1, from which claims 10, 12-15, 22, 23, and 25 depend. Specifically, *Nakuamura* fails to disclose a thermally conductive composite material including an electromagnetic-energy-absorptive material, which includes carbonyl iron. Thus, even assuming, *arguendo*, that it would have been obvious to combine *Maeda* and *Nakuamura*, the suggested combination would still lack features recited by claims 10, 12-15, 22, 23, and 25. Therefore, the combination of *Maeda* and *Nakuamura* fails to render obvious claims 10, 12-15, 22, 23, and 25.

IV. Claims 17-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Maeda* et al (EP 0945916 B1) in view of *Yenni* et al (U.S. Pat. No. 6,090,728). This rejection is respectfully traversed.

The Patent Office relies on *Yenni* merely for disclosing an EMI shielding enclosure including a ground plane of a printed circuit connected to a shaped EMI

shielding cover having fibers substantially surrounded by a fiber coat. A polymeric binder is useful as the fiber coat and includes paraffin wax, EVA, and blends thereof. *Yenni*, however, fails to remedy the shortcomings of *Maeda* discussed above relative to claim 1, from which claims 17-18 depend. Specifically, *Yenni* fails to disclose a thermally conductive composite material including an electromagnetic-energy-absorptive material, which includes carbonyl iron. Thus, even assuming, *arguendo*, that it would have been obvious to combine *Maeda* and *Yenni*, the suggested combination would still lack features recited by claims 17-18. Therefore, the combination of *Maeda* and *Yenni* fails to render obvious claims 17-18.

V. Claims 22-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Maeda* et al (EP 0945916 B1) in view of *Nakuamura* et al (U.S. Pat. No. 5,841,067). This rejection is respectfully traversed.

The Patent Office relies on *Nakuamura* merely for disclosing attachment of a magnetic material including resin via a pressure sensitive adhesive. *Nakuamura* discloses a housing for electronic apparatus, which is protective against electromagnetic wave leakage. *Nakuamura*, however, fails to remedy the shortcomings of *Maeda* discussed above relative to claim 1, from which claims 22-24 depend. Specifically, *Nakuamura* fails to disclose a thermally conductive composite material including an electromagnetic-energy-absorptive material, which includes carbonyl iron. Thus, even assuming, *arguendo*, that it would have been obvious to combine *Maeda* and *Nakuamura*, the suggested combination would still lack features recited by claims 22-24. Therefore, the combination of *Maeda* and *Nakuamura* fails to render obvious claims 22-24.

VI. Claims 22-23 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Maeda* et al (EP 0945916 B1) in view of *Ogihara* et al (U.S. Pat. No. 4,299,873). This rejection is respectfully traversed.

The Patent Office relies on *Ogihara* merely for disclosing a multilayer circuit board with a bonding layer containing organic and inorganic adhesives. *Ogihara*, however, fails to remedy the shortcomings of *Maeda* discussed above relative to claim

1, from which claims 22-23 and 26 depend. Specifically, *Ogihara* fails to disclose a thermally conductive composite material including an electromagnetic-energy-absorptive material, which includes carbonyl iron. Thus, even assuming, *arguendo*, that it would have been obvious to combine *Maeda* and *Ogihara*, the suggested combination would still lack features recited by claims 22-23 and 26. Therefore, the combination of *Maeda* and *Ogihara* fails to render obvious claims 22-23 and 26.

For at least the reasons above, the Examiner is respectfully requested to reconsider and withdraw the §103 rejections of claim 1 and claims 2, 4-5, 9-10, 12-26 dependent therefrom.

NEW CLAIMS 32-50

Applicant submits that no new matter has been added by newly added claims 32-50, as the claimed subject matter is supported by the application as originally filed. New claims 41 and 48 are independent claims. In the interest of expediting prosecution, Applicant now makes the following general observations about the cited patent documents - even though the new claims have not been rejected on the basis thereof.

New claims 32 and 33 depend from independent method claim 27, which Applicant believes to be allowable in view of the above remarks. As such, Applicant believes that dependent claims 32 and 33 are also allowable by virtue of their dependence from independent claim 27. In addition, claims 32 and 33 are further patentably distinguishable over the cited patent documents in that the cited patent documents do not disclose, teach or suggest the additional features as required by claims 32 and 33 (in combination with features recited in the independent claim 27 from which they depend), such as:

"the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base comprise a liquid solution; and placing comprises applying the liquid solution onto a surface of at least one of the device and the proximate structure having one or more surface imperfections, and allowing the liquid solution to flow into the one or more surface imperfections" (as recited in claim 32); or

“the combined thermally conductive material and electromagnetic-energy-absorptive material suspended in the polymeric base comprise a liquid solution; and placing comprises spraying or painting the liquid solution onto a surface of at least one of the device and the proximate structure” (as recited in claim 33).

New claims 34 through 40 ultimately depend from independent claim 1, which Applicant believes to be allowable in view of the above remarks. As such, Applicant believes that dependent claims 34 through 40 are also allowable by virtue of their dependence from independent claim 1. In addition, claims 34 through 40 are further patentably distinguishable over the cited patent documents in that the cited patent documents do not disclose, teach, or suggest the additional features as required by claims 34 through 40 (in combination with features recited in the independent claim 1 from which they ultimately depend), such as:

“wherein the electromagnetic-energy-absorptive material includes generally ellipsoidal carbonyl iron granules” (as recited in claim 34); or

“wherein the electromagnetic-energy-absorptive material is entirely carbonyl iron” (as recited in claim 35); or

“wherein: the electromagnetic-energy-absorptive material exhibits better thermal conductivity than air; and the thermally conductive material exhibits greater thermal conductivity than the electromagnetic-energy-absorptive material, the thermally conductive material having a thermal impedance value substantially less than that of air” (as recited in claim 36); or

“wherein the composite material includes about 60 percent by volume of the thermally conductive material and the electromagnetic-energy-absorptive material” (as recited in claim 37); or

“wherein:

the composite material is in the form of a sheet having a thickness of about 0.125 inch and exhibits an attenuation of at least about 5 dB in a frequency range from about 5 GHz up to at least about 18 GHz; or

the composite material is in the form of a sheet having a thickness of about 0.02 inch and exhibits an attenuation of at least about 3 dB for a frequency range extending upward from about 10 GHz; or

the composite material is in the form of a sheet having a thickness of about 0.04 inch and exhibits an attenuation of at least about 10 dB in a frequency range from about 9 GHz up to at least about 15 GHz and an attenuation of at least about 6 dB in a frequency range extending upward from about 15 GHz; or

the composite material is in the form of a sheet having a thickness of about 0.060 inch and exhibits an attenuation of at least about 5 dB in a frequency range extending upward from about 4 GHz, having a greater attenuation of at least about 10 dB in a frequency range from about 6 GHz up to at least about 10 GHz" (as recited in claim 38); or

"wherein:

the thermally conductive material in particulate form comprises granules spaced-apart from each other;

the electromagnetic-energy-absorptive material in particulate form comprises granules spaced apart from each other and spaced-apart from the granules of the thermally conductive material; and

the composite material is electrically non-conductive" (as recited in claim 39); or

wherein the thermally conductive material comprises microspheres (as recited in claim 40).

New independent claims 41 and 48 recite, among other things, an electromagnetic-energy-absorptive material including iron silicide in particulate form, Iron silicide is a material that includes iron and silicone. In contrast, as explained above, *Maeda* merely recited a silicone gel formed from at least one magnetic material selected

from the group consisting of Mn-Zn ferrite and Ni-Zn ferrite. And, *Kawaguchi* discloses phase transition thermally conductive material with filler. The filler is disclosed as being ceramic, soft ferrite including Ni-Zn ferrite or Mn-Zn ferrite, metallic powders including gold, silver, copper, and aluminum, metallic magnetic bodies, or carbon fiber. Thus, neither *Maeda* nor *Kawaguchi* disclose or suggest an electromagnetic-energy-absorptive material being iron silicide. Further, none of the other references cited by the Examiner disclose a thermally conductive composite material including an electromagnetic-energy-absorptive material, which includes iron silicide. Therefore, the cited references, alone or in combination, fail to anticipate or render obvious independent claim 41 (or dependent claims 42-47 therefrom) or independent claim 48 (or dependent claims 49 and 50 therefrom). Accordingly, new claims 41-50 are in condition for allowance.

<u>CONCLUSION</u>

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7500.

Applicant believes that the correct fees have been paid in connection with this filing. If, however, Applicant owes any fee(s), the Commissioner is hereby authorized to charge the fee(s) to Deposit Account No. 08-0750. In addition, if there is ever any other fee deficiency or overpayment under 37 C.F.R. §1.16 or 1.17 in connection with this patent application, the Commissioner is hereby authorized to charge such deficiency or overpayment to Deposit Account No. 08-0750.